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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,607	10/30/2003	Sivapackia Ganapathiappan	10010060-5	9838

7590 09/02/2004

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
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EXAMINER

ZALUKAEVA, TATYANA

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 09/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/698,607

Applicant(s)

GANAPATHIAPPAN, SIVAPASKIA

Examiner

Tatyana Zalukaeva

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

1. Applicant is reminded to update the continuity data.
2. The term "monomer containing a convertible moiety" convertible, as per instant claim 6 is interpreted in its common meaning as a monomer having functional group or moiety that can be converted into any other functional group or moiety.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 6 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Nguyen et al (U.S. 5,990,202).

Nguyen discloses emulsion polymerization process, containing all the steps and conditions of the instant claim 1 and characteristics of the instant claim 10. best depicted by Example 3 in col.27:

The monomers, hexyl acrylate (25.6 g), MMA (36.8 g), poly(ethylene glycol) methyl ether acrylate (mw=404) (9.6 g) and acrylic acid (8 g) were mixed. To this mixture were added BRIJ 92 (0.81 g) and SOLSPERSE 27,000 (0.81 g). The chain transfer agent isooctyl-3-mercaptopro-pionate (0.82 g) was subsequently added. The mixture was

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shaken vigorously for 3 min, followed by sonication for 3 min to form an emulsion. The emulsion was saturated with nitrogen for 0.5 hr. Meanwhile, a solution of potassium persulfate (1.71 g) in water (700.85 g) was prepared in a three-necked 500 ml round bottom flask and saturated with nitrogen. The persulfate solution was heated to 75.degree. C. The emulsion was added dropwise from an addition funnel to the aqueous persulfate solution over a period of 1 hr. The reaction temperature was maintained at the elevated temperature for 3.5 hr. The solution was then cooled to room temperature to obtain the core-shell polymer in water with a concentration of 10% by weight. The average particle size of the polymer solution was found to be 220 nm.

5. Claims 6, 9 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Nigam et al (U.S. 6,090,193).

Nigam discloses emulsion polymerization process to obtain polymers for water ink compositions. , wherein the polymer contains hydrophobic moieties defined by formulas (I) and hydrophilic defined by formula (II), which is clearly envisaged as convertible moiety (see col.5, formulas Iva, Ivb, V with allowed permutations). The resin can in addition contain crosslinking monomer (col.13, lines 17-37).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 6-10 are rejected under 35 U.S.C. 102(b) as being anticipated by or in the alternative as obvious over Winnik et al (U.S. 4,795,794). Winnik discloses a method of making amphiphatic particles by dispersion polymerization process for affecting the preparation of particles which comprises dissolving in a suitable solvent a mixture of at least two first monomer components including at least one second monomer having covalently attached thereto a dye moiety, subsequently adding to the reaction mixture a polymerization initiator, thereafter affecting polymerization of the reaction mixture by heating, and separating the product particles therefrom (abstract). Average particle size is 0.1-20 micron (0.1 micron=100nm) (col.6, lines 40,41). The resulting mixture from polymerization, i.e. the product particles are separated from the reaction mixture by usual known techniques, including filtration (col.4, lines 34). Here the term dispersion polymerization vs. emulsion polymerization is to distinguish the **resulting** solid dispersion of particles, from the **initial** liquid droplets emulsion of monomers. Therefore, basically the process is the same, but by emulsion the term means the initial reaction

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mixture, and in dispersion, the term means the resulting polymer particles, which are obtained in either process.

In the alternative the rejection is made under 35 USC 103(a), because even if the emulsion polymerization not clearly envisaged by those skilled in the art, the disclosure of Winnik still renders it obvious, since all the steps of the process and conditions are essentially the same in Winnik, as in the instant claims.

9. Other prior art of record discloses processes for obtaining amphiphilic toner particles.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tatyana Zalukaeva whose telephone number is (571) 272-1115. The examiner can normally be reached on 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tatyana Zalukaeva

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August 30, 2004

Primary Examiner
Art Unit 1713

A handwritten signature in black ink, appearing to read "D. Aluka", with a long, sweeping horizontal line extending to the right.